ABSTRACT

A new configuration of ASE source for broadband application is disclosed that employs a single source, a pump splitter and a single EDF. A mirror is used with a first wavelength division-multiplexing device (WDM1) to feedback the ASE power from the port to WDM1 where the mirror can be simply implemented with a gold coating surface on the end of the fiber. With the use of a first and a second WDM, a single pump can be used to generate broadband output. A pump splitter is used with predefined splitting ratio to obtain predefined ASE emission from the ASE source. By adjusting the EDF type and length, pump power, and pump power splitting ratio, various ASE powers can be achieved.